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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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25X1 SUBJECT Aircraft Plant No. 31 in Tbilisi

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SUPPLEMENT TO
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25X1

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1. Location: The Airframe Plant was located on the southeastern edge of the town of TBILISI (44°53' E/41°40' N), immediately north of the Kura River.
2. Exact data relative to the plant installations and newly constructed buildings will be forwarded later.
3. Machinery: The plant was equipped with Soviet and US machinery; no dismantled German equipment was observed.
4. Work force: 2,500 to 3,000 workers in the day shift, including 50 percent women. There was also a much smaller night shift. There were four holidays per month. Several leading engineers were from the Ural district. The majority of the leading personnel spoke German. German engineers were not employed in the plant. **

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25X1A

CENTRAL INTELLIGENCE AGENCY

- 2 -

5. Production:

a. The production of conventional fighters was discontinued in mid-1947. (In-line engine, two-bladed propeller; airframe same as that of turbo-jet fighter, see Annex 1).***

b. The preparations for the production of a turbo-jet fighter were begun in early 1947.

(1) Original Junkers turbo-jet power plants arrived at this time. Soviet-produced turbo-jet power plants (allegedly copies of the Junkers models) arrived by rail from an unidentified plant beginning early in 1948.

(2) It was not ascertained when the first turbo-jet aircraft was flown. No information is available as to whether, in addition to the observed types (see Annexes 1 and 2), still other experimental models were built.

(3) Beginning in early 1948, a monthly output of 150 to 200 turbo-jet aircraft was observed. Ø

(4) A series of 300 to 400 single-seat fighters was first produced (see Annex 1); these aircraft were replaced by a two-seater version of the same type (see Annex 2).

(5) [] the armament of individual experimental models of the single-seat fighter consisted of four machine guns of an estimated caliber of the German type 17 machine gun and of two cannon of unknown caliber. (xxx)

(6) Both types of aircraft were equipped with radio sets located aft of the pilot's seat; but the single-seat version had no antenna rod. (xx)

(7) Bomb release slips, rocket rails, or devices for the installations of cameras were not seen.

(8) Fuel tanks were mounted in the wings, a large fuel tank was located aft of the radio set.

6. Aircraft testing:

a. About 10 percent of the produced aircraft were flight-tested and their armament was adjusted at the factory field located about three miles east of the plant. Most of the manufactured aircraft were loaded on railroad cars without being subjected to acceptance flights. ØØ

b. Take-off ground run: About ten seconds; landing speed: about 130 mph; speed in level flight: 370 to 430 mph at an altitude of 2,000 to 2,500 feet. It seemed as if the aircraft were not flown at full power. Flying at maximum engine performance, at an altitude of 330 feet, the plane would zoom after a short push on the stick, reaching an altitude of about 3,300 feet at an angle of climb of 60° after performing from four to eight rolls. The planes were very maneuverable and flew surprisingly narrow curves. Both types of aircraft were, to a surprising degree, insensitive to cross winds, which could easily be observed during frequent storms. Endurance was said to have been one and a half hours; the test flights never exceeded 30 minutes.

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25X1A

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CENTRAL INTELLIGENCE AGENCY

- 3 -

c. The starting and stopping of the turbo-jet engine could not be observed from a sufficiently close vantage point.

d. The runway of the airfield was at least 5,000 feet long; the field had three hangars (total capacity about ten planes) and an administration building. An engineer unit arrived in early 1948. As far as could be observed, this unit widened the runway 25X1

e. A commercial Dakota plane flying on the MOSCOW-TBILISI line landed and took off every day.

7. Disassembly and Shipping of Aircraft:

a. The produced aircraft, some of which were flight-tested, were disassembled by a special detail (four or five well trained and equipped men) at the loading ramp. All aircraft parts were packed in solid boxes manufactured in the plant. ~~pp~~

b. The wings, tail assembly, power plant, and radio sets were disassembled. No conservation measures were observed. It took from two to three hours to disassemble one plane. The disassembled planes were shipped by rail in trains of about 30 cars, each of which was loaded with one box. The trains left in the direction of BAKU. ~~pp~~

8. Detailed Observations:

a. The waste ratio in the plant was very high, particularly in the tail unit section. It is possible that the waste ratio was so high only during the period when the new experimental aircraft models were produced. (x) The scrap was melted and cast into aluminum ingots in the factory foundry. No details are available concerning the further utilization of these ingots.

b. Work was performed on an assembly line basis; modeled after the method formerly used in Germany ("Taktverfahren"-timed automatic advance of assembly line), 25 to 30 fuselages were simultaneously being assembled on the line. The final assembly line was located between the fuselage and airframe assembly lines.

c. There was first-class flush-riveting on outer skin; no cracks or dents were observed; after-treatment with smoothers was not necessary. After being varnished, the aircraft were painted bluish-green. (x)

d. The power plant was suspended at four points. (xx)

e. There were difficulties in the refining treatment of materials. In early 1948 new annealing and refinement baths were installed. (x)

f. The shaping of sheet metal also presented problems, but these were overcome. (x)

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25X1

CENTRAL INTELLIGENCE AGENCY

- 4 -

g. The designing bureaus were well and modernly equipped. Technical literature and the most modern working material from all countries were available.

9. Personal Experiences:[REDACTED]

25X1

25X1

[REDACTED]10. Other Observations:

Searchlight practice and both AAA and artillery firing were frequently observed in the vicinity of the airfield. No details are available.

11. In a de Zone processing camp [REDACTED] that underground hangars were located at the airfield near RUCAVI. The aircraft had arrived there by rail. 000

25X1

[REDACTED] Comment:

25X1

[REDACTED]

- ** b. The reported labor force of the day shift (2,500 to 3,000) agrees with the bulk of available information covering the same period of observation. [REDACTED]

25X1

[REDACTED] that, in addition to the one full day shift, only partial shifts with a considerably smaller work force were worked in some plant sections. The arrival, in January, 1947, of technical personnel from the former Siebel Aircraft Plant or of other deported German personnel was not observed; so these were possibly transferred to some other plant.

- *** c. The only unanimous statement in all reports received on the conventional fighter previously produced in the plant is that the landing gear was retracted clockwise into the wings, a feature [REDACTED] after an extensive [REDACTED] and previously existing uncertainty as to whether this type of aircraft was equipped with radial or in-line engine can be explained only by the assumption that this type represents a new series of the

25X1

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25X1

CENTRAL INTELLIGENCE AGENCY

- 5 -

Yak-7, or the Yak-11 trainer, which were equipped with both the Ash -21 radial engines and in-line engines. (The two-bladed propeller was particularly stressed.) When the production of this conventional fighter aircraft was definitely suspended cannot be ascertained from the reports received; [redacted]

25X1

d. The information on the output of the plant explains, to a certain extent the previously obtained contradictory information on the actual output and the plant capacity. [redacted] the production of the single-seat Yak-15 with standard landing gear and of the two-seat trainer type equipped with nose wheel, which replaced the single-seat type (production: 300 to 400). The utilization of the two-seat version as a night fighter was considered impossible, since it was not provided with dipoles, mountings for dipoles, or auxiliary tanks.

25X1

e. The statement that only two or three planes of the daily production were flight tested at the factory airfield whereas, the bulk of the produced aircraft were shipped away in boxes without any prior acceptance flights, was made in a very definite manner. [redacted] noticed the procedure with the greatest surprise [redacted] about it. They confirmed his observation. The same procedure was previously reported for the period from June 1946 to February 1947.

25X1

f. No definite information is available whether these aircraft were stockpiled; on the one hand, no conservation measures were observed; on the other hand, the return of empty transport boxes was not noticed throughout the reported period. This question may possibly be clarified by the statements made by a German PW [redacted] large boxes were unloaded near RUSZAVI, where underground aircraft depots are allegedly located. The stockpiling of such fighter trainers over a prolonged period is considered improbable.

25X1

(x) g. The statements on the high scrap ratio and the first-class flush riveting seems to be contradictory. Asked for an explanation of this, [redacted] cracks frequently occurred in the shaping of the predominantly German sheet metal material (German control stamps on the sheets) because of unsatisfactory annealing and refining baths. In this case, parts which could well have been utilized after some minor treatment were frequently scrapped. These difficulties in the shaping of metal sheets were overcome in early 1943 through the acquisition of annealing tools and new annealing and refining baths, including an anodic bath.

(xx) h. The attached two sketches were discussed in detail. [redacted] insisted that the suspension of the power plant and the unfaired tiltable nose wheel set forward of the air intake (see Annex 2) were correctly observed by him, but this statement is believed to be in error because the presence of cowlings for the retractable nose wheel can be assumed with certainty, since there would otherwise be a major disturbance in the air flow during the extension or retraction of the landing gear. Also the absence of an engine on the single-seat fighter seems questionable.

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CENTRAL INTELLIGENCE AGENCY

- 6 -

- (xxx) 1. The armament with four machine guns and two cannon seems to be too heavy for a trainer type. According to most former reports, only two machine guns and two cannon were observed.

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1. Single-Seat Turbo-Jet Fighter Observed at the Factory Field Three Miles East of Aircraft Plant No.31 in TBILISI.
2. Two-Seat Turbo-Jet Aircraft Observed at the Factory Field Three Miles East of Aircraft Plant No.31 in TBILISI.

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